

REMARKS

Claim 63-73 were rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claim 63 is amended to replace the term "block number" with the term "substitute address." This amendment is for clarification only and does not further limit this claim. This claim now recites "access means for converting a sector address received from the external system into a substitute address and for accessing the flash memory according to the substitute address." The specification teaches: "When the controller is given an address to access data, the controller compares this address against the sector defect map. If a match occurs then access to the defective sector is denied and the substitute address present in the defect map is entered and the corresponding substitute sector is accessed instead." See page 23, lines 31-35. Because this limitation, as amended, is supported by the specification, it is requested that the rejection be withdrawn.

Claim 64, as amended, includes the feature: "each block comprising an area for storing an address of another block and an area for storing data." The term "block" is supported at several points in the specification. For example "systems that store data in files or blocks," page 8 lines 7-8, "In other devices... the memory is divided into blocks (or sectors) that are each separately erasable," page 8, lines 27-29. Thus, in some examples a block may be one sector.

The specification teaches "a typical sector 401 organized into a data portion 403 and a spare (or shadow) portion 405." See page 16, lines 27-28. The spare portion 405 is further organized to include "a defect map area 409." See page 16, line 31 and Figure 5. The defect map area may include an address. "The substitute address present in the defect map." See page 23, line 35. Thus, this limitation is supported.

Claim 64 also includes the limitation: "said access means converts the sector address received from the external system into a substitute address and searches the block with such substitute address in order to read therefrom the number of another."

The term "substitute address" is supported as discussed above. "In a read operation, the controller first reads the header, the defect map and the alternative defects data." See page 17, lines 19-21. In one embodiment, a defective sector is mapped to another sector. "The defect pointer for the linked sectors may be stored in a sector defect map. The sector defect map may be located in the original defective sector." See page 23, lines 19-22. Thus, in some examples, the spare portion of one sector (or block) may contain a defect pointer linking to another sector (or block). Because claim 64 is supported as described, it is requested that the rejection be withdrawn.

Claim 65, as amended, recites "the substitute address includes a logical block address." This feature is supported in the specification. "The substitute address present in the defect map is entered and the corresponding substitute sector is accessed instead." See page 23, lines 31-35. Therefore, it is requested that the rejection be withdrawn.

Claim 66, as amended, recites: "addressing circuits responsive to a sector address... (b) read the block address stored in the block address area of said corresponding block, and (c) if the read block address is a match, addressing another block having the address read from said corresponding block."

The specification teaches "In a read operation, the controller first reads the header, the defect map and the alternative defects data." See page 17, lines 19-21. "The defect pointer for the linked sectors may be stored in a sector defect map. The sector defect map may be located in the original defective sector." See page 23, lines 19-22. "When the controller is given an address to access data, the controller compares this address against the sector defect map. If a match occurs then access to the defective sector is denied and the substitute address present in the defect map is entered." See page 23, lines 31-35. Thus, reading a defective sector may lead to addressing another sector based on the defect pointer in the defective sector. Therefore, this feature is supported. Therefore, it is requested that the rejection be withdrawn.

Claim 69 recites: "configuring use of the memory cells within the individual sectors to provide at least distinct portions in which user data and a sector address are stored." This is supported as discussed above. "A typical sector 401 organized into a data portion 403 and a spare (or shadow) portion 405." See page 16, lines 27-28. The spare portion 405 is further organized to include "a defect map area 409." See page 16, line 31 and Figure 5. The defect

map area may include an address. "The substitute address present in the defect map." See page 23, line 35.


Claim 69 also recites: "in response to receiving a memory address from the host computer, addressing a corresponding sector and reading the sector address from the sector address portion thereof" and "if the read sector address is that of a sector other than the addressed corresponding sector, addressing the other sector and sending data to the host computer that is read from the user data portion of the other sector."

The specification teaches that when a defect map indicates another address "the substitute address present in the defect map is entered, and the corresponding substitute sector is accessed instead." See page 23, line 34- page 24, line 2. Thus, the claimed feature is supported. Therefore, it is requested that the rejection be withdrawn.

Claim 72 was rejected for lack of support for the feature: "memory array within a card that is removably connectable to the host computer system."

However, the specification teaches "The bulk storage memory 29 of Figures 1A and 1B can be implemented on a single printed circuit card for moderate memory sizes. The various lines of the system buses 39 and 41 of Figure 1B are terminated in connecting pins of such a card for connection with the rest of the computer system through a connector." Thus, the card is removably connected by connecting pins and a connector. Hence, the above feature is supported. Therefore, it is requested that the rejection be withdrawn.

Respectfully submitted,



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